

REMARKS

This patent application includes Claims 3-15, 19, 20, 35, 42, 65, 85, 110 and 120-202, all of which stand rejected. The claims were amended to define the applicants' invention more precisely and all rejections are respectfully traversed.

Initially, the undersigned objects to the finality of the last Office Action. All claims are rejected on the basis of a newly cited reference, Ishikawa et al., U.S. Patent No. 6, 261,247. The examiner justifies the finality of the final rejection on the ground that the applicants' last amendment necessitated the new ground of rejection. However, it is quite impossible that the amendment could have necessitated the new ground of rejection, since it contained no substantive amendments. Specifically, Claims 3, 35, 42, 65, 85, and 110 were rewritten in independent form. The only additional amendment was the introduction of a "thereby" clause at the end of the last subparagraph in each claim. This is not a substantive limitation, but only an explanation of the effect of the subject matter that immediately precedes it. Furthermore, new Claims 120-202 are merely rewritten forms of claims that were originally dependent from claims that were cancelled in the last amendment. Accordingly, they also include subject matter that was previously presented and, therefore, could not necessitate the citation of a new reference.

In summary, the last amendment introduced no new substantive limitations and could not have necessitated the citation of the new reference. Under these circumstances, it is decidedly improper to make the rejection final, as it forecloses the applicants' from making amendments as a matter right in view of the newly cited reference. The finality of the last rejection was therefore improper and the present amendment could have been entered as a matter of right. The applicants therefore do not expect a final rejection in the first office action after the grant of the RCE.

Claims 3-15, 19-20, 35, 40, 65, 85, 110 and 120-202 are rejected as obvious over Simon et al., U.S. Patent No. 6,470,207 in view of Ishikawa et al. U.S. Patent No. 6,261,247, Schweikard et al., U.S. Patent No. 6,501,981 and Cosman, U.S. Patent No. 6,006,126. This rejection is respectfully traversed. None of these references, nor their combination, renders these claims obvious.

In accordance with each of the claims as presently amended, the location and orientation of a surgical component and an imaging component are acquired in the same coordinate system. As a result, it is possible to eliminate computations for correlating the location and orientation of the surgical component and the location of orientation of the imaging component. This achieves a substantial reduction in the processing load that must be handled by the system.

The Examiner asserts that Simon et al. do not expressly teach elimination of the computation of correlation between the different sensors. In fact, Simon specifically teaches the opposite. That is, in Simon, a fluoroscopic image is taken first and then calibrated and coordinated with the coordinate system of the computers that control the surgical sensors and instruments. It will be appreciated that the user must go to great pains to achieve this (see, for example, col. 6, lines 42 through col. 8, line 27). So, the truth is that Simon reflects the accepted state of the art prior to the present invention and actually teaches away from it. It is unrealistic for the Examiner even to suggest otherwise.

The Examiner also asserts that Ishikawa et al. teach the use of transponders at any area of interest including surgical instruments, medical apparatus, organs, prosthetic devices and their localizations using simple triangulation techniques. The Examiner then concludes that it would have been obvious to have modified Simon in view of Ishikawa so as to use transponders in order to simplify the calculations and localization procedures involved. Nothing could be further from the truth.

In fact, Ishikawa discloses only that surgery related components and body parts or prosthetic devices be provided with transponders that operate in a common coordinate system. Ishikawa refers to imaging components twice (see col. 1, lines 39-50 and col. 19, lines 58-65), yet Ishikawa does not teach or even remotely suggest that location or orientation information related to imaging equipment be acquired in the same coordinate system as such information related to surgical and similar components. In fact, Ishikawa is silent as to how the information as to the imaging equipment is coordinated with the other information. The only reasonable conclusion is that Ishikawa follows the conventional wisdom as illustrated by Simon.

If truth be told, the only disclosure that can be found for the basic concept of the present invention which is discussed above is in the four corners of the present patent application. Without that disclosure, even the suggestion that surgical components and imaging components can have their orientation location acquired in a common coordinate system is a giant and unjustified leap. In view of the substantial advantages achieved by the present invention, that basic concept would have been used in prior art systems such as Simon, if it were obvious.

Apparently, the examiner has used the disclosure of the application to arbitrarily select features from the cited references to make the rejection (As shown above, even the improbable combinations suggested by the examiner do not teach or suggest the invention).

The examiner appears to have overlooked the requirement that for references to be combined, "there must be some reason, suggestion or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicants' invention itself." *In Re Oetiker*, 24 U.S.P.Q. 2d 1443 (Fed. Cir. 1992). "The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 23 U.S.P.Q. 2nd 1780, 1783 (Fed Cir. 1992). It is error to reconstruct the patentee's claimed invention from prior art by using the patentee's claim as a "blueprint" when prior art references require selective combination to render obvious a subsequent invention. There must be some reason for the combination other than the hindsight obtained from the invention itself. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132 (Fed. Cir. 1985).

Indeed, the only disclosure for any of the combinations made by the examiner is the present patent application itself. As stated by the CAFC in *In re Fritch*, 23 USPQ 2d. 1780 (Fed. Cir. 1992):

[I]t is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious... This court has previously stated that "one cannot use hindsight reconstruction to pick

and choose among isolated disclosures in the prior art to deprecate the claimed invention."

The CAFC has also stated that:

As in all determination under 35 U.S.C. §103, the decision maker must bring judgment to bear. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps.

In Re Gorman, 18 USPQ 2d. 1885 (Fed. Cir. 1991).

The examiner's hindsight approach is evidenced by the fact that she has arbitrarily combined the references without even alluding to the slightest suggestion in any of them that such combination should be made or that it would be of any benefit. It might very well be asked how the present invention could be considered obvious, there are substantial benefits derived and none of the references even suggests it. "We do not pick or choose among the individual elements of assorted prior art references to recreate the claimed invention, but rather, we look for some teaching or suggestion in the references to support their use in the particular claimed combination." *Symbol Technologies, Inc. v. Opticon, Inc.*, 19 USPQ 2d. 1241 (Fed. Cir. 1991). It is by now well settled that obviousness cannot be established by combining the teachings of prior art references to produce a claimed invention, absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montafure Hospital*, 221 USPQ 929 (Fed. Cir. 1984).

In view of the foregoing, it is believed that any obviousness rejection based upon the examiner's improbable combinations of references is improper and must be withdrawn.

For all of the above reasons, all of the independent claims present in this application are in condition for allowance. The dependent claims are allowable owing to their dependence from an allowable claim

Applicants' attorney has made every effort to place this patent application in condition for allowance. It is therefore requested that the present amendment be entered, that this application

as a whole receive favorable reconsideration, and that all of the claims be allowed as presently constituted. Should there remain any unanswered questions, the Examiner is requested to call the Applicants' undersigned attorney at the telephone indicated below.

Dated:

Respectfully submitted,

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